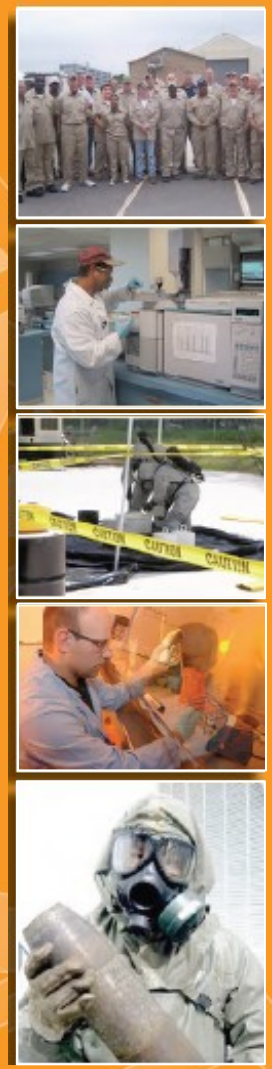
CBARR Overview

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

Mission and Vision



MISSION

Chemical Biological Applications and Risk Reduction's (CBARR) mission is to perform global Chemical and Biological (CB) operations in a safe, secure and environmentally sound manner.

VISION

Be the recognized leader in providing integrated CB solutions for customers worldwide.

PERSONNEL PROFILE

250 field-deployable scientists, engineers, technicians and operators located in Edgewood, Md. and Pine Bluff, Ark.

SPECIALIZED SKILLS/CERTIFICATIONS

- 150 Chemical/Biological Personnel Reliability Program-certified individuals
- Highly trained and experienced workforce - certified, vaccinated, cleared and mobile

CAPABILITIES:

- Deployable Lab Services
- Laboratory Support
- Field Operations
- Live Agent Operations
- Risk Management & Training

Facilities & Equipment

FACILITIES & EQUIPMENT

THE CHEMICAL TRANSFER FACILITY (CTF)

- Single repository for the Army's research and development stocks of toxic chemical agents
- Single Small Scale Facility (SSSF) under the Chemical Weapons Convention (CWC)
- Chemical Weapons Storage Facility (CWSF) and Chemical Weapons Destruction Facility

THE SAMPLE RECEIPT FACILITY (SRF)

- Nation's premier facility for the receipt and exploitation of uncharacterized samples
- Occupies 44,375 sq ft of analytical laboratories for chemical, biological and radiological assessment

THE ENVIRONMENTAL MONITORING LABORATORY

- Occupies 5,185 sq ft of laboratory space providing high throughput CWA/BWA and inorganic chemical analysis using robotics in both mobile and stationary analytical lab constructs

PINE BLUFF ARSENAL (PBA) MONITORING BRANCH LABORATORY

- Fixed lab occupying 11,000 sq ft housing nine Real Time Analytical Platforms (RTAPs)
- Performs gas chromatography mass spectrometry (GC-MS) analysis, ICP analysis and wet chemistry analysis

Facilities & Equipment

FACILITIES & EQUIPMENT CONT.

APG-EA TESTING FACILITIES

MUNITIONS ASSESSMENT AND PROCESSING SYSTEM

- Fixed facility occupying 9000 sq ft composed of specialized glove boxes, drilling and cutting hardware, explosive containment chambers, and negative pressure filtration systems
- Designed to receive and process a wide variety of stable, explosively and non-explosively configured chemical munitions and safely access and drain explosively configured chemical-filled munitions and detonate the empty munition bodies

PROTOTYPE DETONATION TEST AND DESTRUCTION FACILITY (PDTDF)

- Facility used to test and demonstrate technologies to destroy UXO and exploit potential CW/BW explosively configured unknowns
- Occupies 2,500 sq ft with a containment chamber ventilated at 5000 CFM to ensure capture of contamination within
Blast Containment Chamber inside the facility
- Multiple Vapor Containment Structures (VCS) available on site

EQUIPMENT

- Long haul trucks
- Air Filtration Systems
- Electrical distribution equipment

Laboratory Support

LABORATORY SUPPORT

ENVIRONMENTAL MONITORING LABORATORY (EML)

- High throughput lab that provides CWA/BWA and inorganic chemical analysis in several matrices (air, water, soil, paint chips, wipes, organic liquids, fish tissue, demolition debris and unknowns)

- Robotic-assisted analysis used for high-throughput sample analysis for biological agent screening using polymerase chain reaction and electrochemiluminescent assays

- DoD Chemical Personnel Reliability Program (CPRP) and Biological Personnel Reliability Program (BPRP)

- CDC and USDA permitted for Select Agent

- Membership in EPA Environmental Response Laboratory Network (ERLN) and Water Lab Alliance (WLA)

- Membership in FDA Food Emergency Response Network (FERN)

Certifications

CERTIFICATIONS

ISO/IEC2005:17025

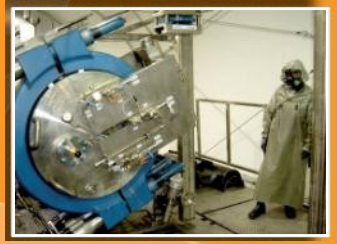
- Accredited by the American Association for Laboratory Accreditation (A2LA) in the field of Biological Testing
- Scope of accreditation includes qualitative ECL immunoassay testing and qualitative PCR analysis for biological warfare agents
- Scope of accreditation covers analysis performed in either their fixed or mobile laboratories

A2LA ACCREDITED
TESTING CERT #2866.01

QUALITY CERTIFICATIONS AND COMPLIANCES

- Compliant with Chemical Material Agency's(CMA) Laboratory and Monitoring Quality Assurance Plan (LMQAP) and Chemical Agent Standard Analytical Reference Material (CASARM) Quality Assurance Plan
- Undergo annual recertification with CASARM
- Participates in internal and external quality system audits

Field Operations/Systems



FIELD OPERATIONS

- Demolition of former CB process facilities
- Support to the U.S. Army Corps of Engineers in remediation of formerly used defense sites
- Support to the United Nations in non-proliferation activities
- Environmental investigation for the U.S. Fish and Wildlife Service on Laysan Island, Hawaii

SYSTEMS

EXPLOSIVE DESTRUCTION SYSTEM (EDS)

- Transportable system designed to safely destroy range recovered, explosively configured and chemical-filled munitions
- Operated on behalf of PM Non-Stockpile
- Deployed system in CONUS over 10 times for emergency destruction of CW-filled munition

TRANSPORTABLE DETONATION CHAMBER (TDC)

- Transportable system design to provide high throughput, safe destruction of chemical-filled, explosively configured and conventional munitions
- Operated and maintained in partnership with CH2M HILL
- Deployed system CONUS and OCONUS for CW munition destruction operations with a maximum demonstrated daily throughput of 16 munitions

Deployable Lab Services

DEPLOYABLE LAB SERVICES

NEAR REAL TIME MONITORING

- Automated continuous monitoring systems provide near real-time detection of airborne contaminants to insure worker safety
- Instruments are gas chromatography(GC) based coupled with flame photometric or halogen specific detectors
- Up to 32 systems can be linked and remotely controlled by computer
- Deployed in both mobile and fixed configurations which are designed and fabricated to satisfy site specific requirements

ON-SITE LAB ANALYSIS

- Fully functional, mobile laboratories perform critical on-site analysis of air, water and soil samples
- Utilizes state-of-the-art analytical instrumentation to monitor for chemical warfare agents as well as their breakdown products
- Can operate on either land power or on-board electrical generators
- Capable of 24-hour operation

Live Agent Operations/ Risk Management

LIVE AGENT OPERATIONS

- U.S. declared single small-scale facility under the CWC
- Conducts chemical agent synthesis and purification
- Conducts a wide variety of chemical process operations in support of the U.S. Chemical Demilitarization Program
- Supports the law enforcement community in CB screening of unknown samples

RISK MANAGEMENT

Provides comprehensive life cycle environmental, safety and health services in support of chemical/biological operations:

- Hazard analyses/risk assessments/development of standard operating procedures
- Environmental impact/pollution prevention
- Opportunity assessments
- Physical security assessments
- Air monitoring strategies for CB agents and industrial compounds
- Field testing and certification of engineering control systems
- Environmental, safety and health field inspections

Training

TRAINING

Conducts comprehensive training programs in the following areas:

- Chemical and biological agents
- Chemical and biological agent effects
- Detection, identification and monitoring equipment
- Potential scenarios
- Decontamination methods and techniques
- General industrial safety (Toxic Industrial Chemicals/Materials)

Practical exercises that focus on the following:

- Render Safe Procedures
- Sample acquisition
- Personal protective equipment selection and use

Success Stories

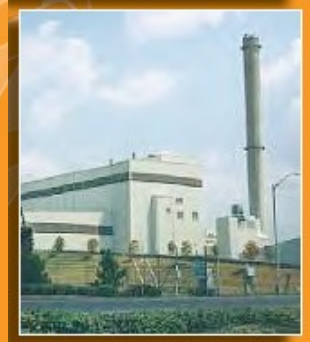
BECHTEL

PARSONS

URS

CH2MHILL

KOBELCO



ALBANIA CHEMICAL WEAPONS ELIMINATION (DTRA)

- Provided sampling and characterization of Albania CW Stockpile (2005 - 2007)
- Conducted safety and process analyses
- Over 38,000 hours deployed
- Over 5,000 air samples analyzed

BLUE GRASS TON CONTAINER NEUTRALIZATION (ACWA)

- Chemical Agent Transfer System
- Transferred the contents of the ton containers into a 20-gallon reactor and neutralized the agent through hydrolysis
- Provided all site support (electrical generators, mobile laboratory, air monitoring and filtration systems)
- Neutralized approximately 137 gallons of agent (December 2008)

CHEMICAL MATERIALS AGENCY SUPPORT

- Chem Demil Operators
- Secondary Waste Disposal (PCD, PBA, APG)
- Method validation
- Legacy waste repackaging
- EDS/TDC operations

More Success Stories

U.S. ARMY CORPS OF ENGINEERS

- ECBC has provided chemical/biological analysis of environmental samples, chemical agent filtration systems and vapor containment structure erection and certification.
- Remediation and site investigations at Formally Used Defense Sites (FUDS) to include sites in Alabama, Florida, Oklahoma, Hawaii, New Jersey, Kansas, Guam, Virgin Island and Washington D.C.

FOOD ANALYSIS AND METHODOLOGY DEVELOPMENT (FERN)

- Accepted into FERN as a biological/chemical/radiological testing laboratory in January 2009
- Performs method equivalency testing for biological analysis with food matrices

HIGH-THROUGHPUT PCR ASSAY EVALUATION (JOINT PROGRAM OFFICE FOR CHEMBIO DEFENSE)

- Performed fastblock PCR assays using EBML's high-throughput 384-well PCR format
- Work supported the Critical Reagents Program (CRP) new product line
- Feasibility studies provided data to support assay formulation changes that benefit the CRP, CRP customers and ECBC

Contacting CBARR

The Recognized Leader in Providing CB Solutions

FOR MORE INFORMATION CONTACT
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ECBC IS PART OF THE

US ARMY RDECOM

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